

Bridge Inventory & Structural Recommendation Report For I-70; Sinbad Interchange to MP 141

Structure: 2F-240, I-70 EB at Sinbad Interchange

Structure: 4F-240, I-70 WB at Sinbad Interchange



Project Manager: Kirk Thornock

Project Number: F-I70-3(48)141

PIN Number: 5810

CID: 5240704M

UDOT Structures Division

Region 4

FY: 2007

Prepared by

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Structure Inventory & Recommendation Report

Summary

Purpose of Concept Report:

This report presents a conceptual overview of structure needs for a pavement rehabilitation project on I-70, Sinbad Interchange to MP141. This report is intended to convey the need, scope, and cost estimate for the structure portion of the project.

Project Information:

Region: 4 **Route No.:** I-70 **Date:** October, 2006

Project Name: I-70, Sinbad Interchange to MP 141

Beg. R.P.: 1319 **End R.P.:** 141

Project Number: F-I70-3(48)141 **PIN:** 5810 **CID:** 5240704M

Project Design: Bridge: UDOT Structures Division; Roadway: Region 4 Preconstruction

Project Mgr: Kirk Thornock; (435-893-4732)

Project Scope:

1. Deficiencies & History (10/18/2005 inspection):

<i>Bridge</i>	<i>Year Built</i>	<i>Suff. Rating</i>	<i>Deck</i>	<i>Super</i>	<i>Sub</i>	<i>Scour</i>	<i>Construction History</i>
2F-240	1973	97	7	8	7	N/A	05' Preservation Project
4F-240	1989	79	8	8	8	N/A	05' Preservation Project

Information & Deficiencies (*Include but are not limited to*):

2F-240; I-70 EB at Sinbad Interchange, MP 131.51

- Chip Seal overlay does not extend to the parapets
- Relief Joints have cracked open

4F-240; I-70 WB at Sinbad Interchange, MP131.51

- Relief Joints have cracked open
- Bridge currently has stay in place forms

Structure	Bridge Rail	Approach Rail	Transition	Approach Rail Ends
2F-240	Meets Standards	Meets Standards	Meets Standards	Meets Standards
4F-240	Meets Standards	Meets Standards	Meets Standards	Meets Standards

2. **Plan:**
The bridge portion of the project is intended to provide “*preventive maintenance and corrective treatments*” to extend the life of the above-mentioned bridges.
3. **Work items to be completed as part of project:**
- 2F-240; I-70, EB Bridge at the Sinbad Interchange at MP 131.51**
- Asphalt Surfacing Removal (Structural)
 - Waterproofing Membrane
 - Pothole Patching Deck & Approach Slabs(Est. 0-5%)
 - Parapet Sealing
 - Relief Joint Crack Sealing
 - 2 ½” HMA Overlay (3/4” Mix) ROADWAY ITEM
- 4F-240; I-70 WB Bridge at the Sinbad Interchange At MP 131.51**
- Relief Joint Crack Sealing
 - Parapet Sealing
- Included in Roadway**
- Pavement marking paint
 - Maintenance of traffic (MOT)
 - Traffic control
 - Mobilization
 - HMA overlay
4. **Work items not included in this Report:**
The structural inventory and recommendation report only addresses structural needs, and is intended to be a component of the overall project. Other needs such as pavement, roadway, geometry, capacity, safety, utilities, and environmental needs are not included in this report. Some bridges have substandard barrier end treatments; these should be considered with the roadway items of work.
5. **Design Exceptions Required:**
Not expected for the structures portion.
6. **Maintenance Considerations:**
Region 4 Maintenance Station 4436 should be included in the concept development.
7. **Construction Considerations:**
Construction easements and staging areas, night work, off peak work, A+B bidding and Limitations of Operations should be considered.
8. **Risk Analysis:** (None anticipated at this time)
9. **Development Process:**
- | | |
|-----------------------------|-------------|
| New or Major Reconstruction | _____ |
| Rehabilitation | _____X_____ |
| Preservation | _____ |

Schedule of Project:

See Concept Report for overall project schedule.

Funding Overview:

1. **Funding Source:** Federal Funds
2. **Amount Programmed:** \$???
3. **Structure Cost Estimate:** \$ 42,714.10

I-70, Sinbad Interchange to MP 141

Structure: 2F-240, I-70 EB Bridge at the Sinbad Interchange

Item	Quantity	Unit	Unit Cost	Total Cost
Asphalt Surfacing Removal (structural)	625	SY	\$ 10.00	\$ 6,250.00
Waterproofing Membrane (Deck & Approach Slabs)	5630	SF	\$ 2.50	\$ 14,075.00
Pothole Patching Deck & Approach Slabs (Est ~0 - 5%)	280	SF	\$ 25.00	\$ 7,000.00
2.5" HMA Overlay (3/4" Mix)	85	TONS	\$ 105.00	Roadway Item
Parapet Sealing Vexcon Pigmented Concreted Sealer	242	LF	\$ 3.00	\$ 726.00
Relief Joint Crack Sealing	102	LF	\$ 20.00	\$ 2,040.00

Structure: 4F-240, I-70 WB Bridge at the Sinbad Interchange

Item	Quantity	Unit	Unit Cost	Total Cost
Parapet Sealing Vexcon Pigmented Concreted Sealer	242	LF	\$ 3.00	\$ 726.00
Relief Joint Crack Sealing	102	LF	\$ 20.00	\$ 2,040.00

Bridge Subtotal **\$ 32,857.00**

Pavement Marking Paint	Included In Roadway Costs
Traffic Control	Included In Roadway Costs
MOT	Included In Roadway Costs
Mobilization	Included In Roadway Costs

10% Construction Bridge Contingency	\$ 3,285.70
PE/CE 20% For Bridges	\$ 6,571.40

Bridge Total **\$ 42,714.10**

Location Maps